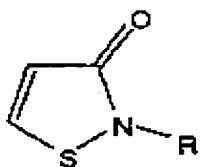


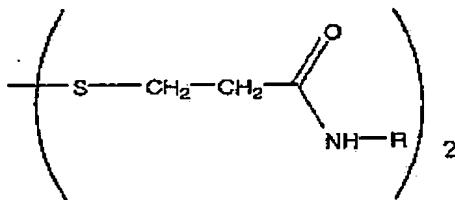
Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application.

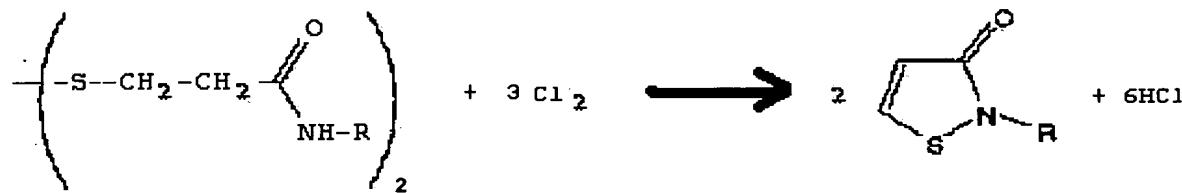
1. (Currently Amended) An industrial disinfectant composition comprising, as an effective component, a [[2-alkyl-4-isothiazoline-3-one]] 2-alkyl-4-isothiazoline-3-one represented by the formula (III),



which is obtained by reacting the compound represented by formula (II),



with chlorine as a chlorinating agent in dichloromethane as a solvent, in which hydrogen chloride is insoluble or exhibits low solubility, at a temperature of 39-41°C, according the reaction formula represented by:



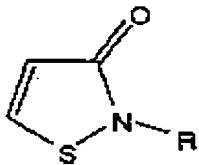
wherein R in the compounds of formulae (II) and (III) represents an alkyl group or aralkyl group of C1 to C8, and

wherein the amount of a 5-chloro-2-alkyl-4-isothiazoline-3-one contained in the 2-alkyl-4-isothiazoline-3-one produced is less than 0.1%.

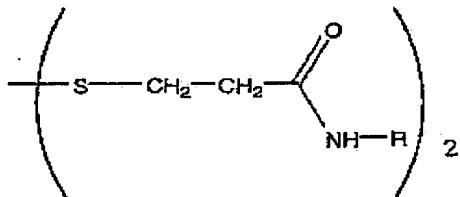
2. (Currently Amended) The industrial disinfectant composition method producing a ~~2-alkyl-4-isothiazoline-3-one~~ as defined in claim 1, wherein the R represents a methyl group.

3. (Currently Amended) The industrial disinfectant composition method producing a ~~2-alkyl-4-isothiazoline-3-one~~ as defined in claim 1, wherein the R represents a normal octyl group.

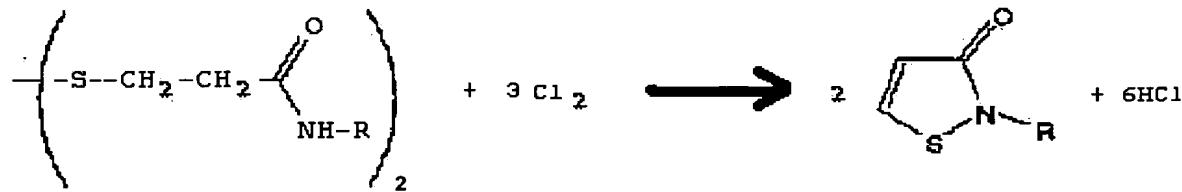
4. (Currently Amended) An industrial disinfectant composition comprising, as an effective component, a [[2-alkyl-4-isothiazoline-3-one]] 2-alkyl-4-isothiazoline-3-one represented by the formula (III),



which is obtained by reacting the compound represented by formula (II),



with chlorine as a chlorinating agent in dichloromethane as a solvent, in which hydrogen chloride is insoluble or exhibits low solubility, at a temperature of 39-41°C, according the reaction formula represented by:



filtrating a hydrochloride salt of the compound of formula (III) obtained from the reaction of the compound of formula II with chlorine, and

washing the hydrochloride salt with a solvent which is inert to the hydrochloride salt and in which the hydrochloride salt exhibits low solubility,

wherein R in the compounds of formulae (II) and (III) represents an alkyl group or aralkyl group of C1 to C8, and

wherein the amount of a 5-chloro-2-alkyl-4-isothiazoline-3-one contained in the 2-alkyl-4-isothiazoline-3-one produced is less than 0.1%.

5. (Currently Amended) The industrial disinfectant composition method ~~producing a 2-alkyl-4-isothiazoline-3-one~~ as defined in claim 4, wherein the R represents a methyl group.

6. (Currently Amended) The industrial disinfectant composition method ~~producing a 2-alkyl-4-isothiazoline-3-one~~ as defined in claim 4, wherein the R represents a normal octyl group.